



OUR UNDER  
COMMON CLIMATE  
FUTURE CHANGE

International Scientific Conference  
**ABSTRACT BOOK**

7-10 July 2015 • Paris, France

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This Abstract book is based on a compilation of all abstracts selected for oral and poster presentations, as of 15 May 2015.

Due to the inability of some authors to attend, some of those works will therefore not be presented during the conference.



# OUR UNDER COMMON CLIMATE FUTURE CHANGE

## Welcome to the Conference

### Welcome to Paris, welcome to 'Our Common Future under Climate Change'!

On behalf of the High Level Board, the Organizing Committee and the Scientific Committee, it is our pleasure to welcome you to Paris to the largest forum for the scientific community to come together ahead of COP21, hosted by France in December 2015 ("Paris Climat 2015").

Building on the results of the IPCC 5th Assessment Report (AR5), this four-day conference will address key issues concerning climate change in the broader context of global change. It will offer an opportunity to discuss solutions for both mitigation and adaptation issues. The Conference also aims to contribute to a science-society dialogue, notably thanks to specific sessions with stakeholders during the event and through nearly 80 accredited side events taking place all around the world from June 1st to July 15th.

When putting together this event over the past months, we were greatly encouraged by the huge interest from the global scientific community, with more than 400 parallel sessions and 2200 abstracts submitted, eventually leading to the organization of 140 parallel sessions.

Strong support was also received from many public French, European and international institutions and organizations, allowing us to invite many keynote speakers and fund the participation of more than 120 young researchers from developing countries. Let us warmly thank all those who made this possible.

The International Scientific Committee deserves warm thanks for designing plenary and large parallel sessions as well as supervising the call for contributions and the call for sessions, as well as the merging process of more than 400 parallel sessions into 140 parallel sessions. The Organizing Committee did its best to ensure that the overall organization for the conference was relevant to the objectives and scope. The High Level Board raised the funds, engaged the scientific community to contribute and accredited side events. The Conference Secretariat worked hard to make this event happening. The Communication Advisory Board was instrumental in launching and framing our communication activities on different media. We are very grateful to all.

We very much hope that you will enjoy your stay in Paris and benefit from exciting scientific interactions, contributing to the future scientific agenda. We also hope that the conference will facilitate, encourage and develop connections between scientists and stakeholders, allowing to draw new avenues in the research agenda engaging the scientific community to elaborate, assess and monitor solutions to tackle climate change together with other major global challenges, including sustainable development goals.

**Christopher Field**, *Chair, CFCC15 Scientific Committee*  
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7-10 JULY 2015 | PARIS, FRANCE

International Scientific Conference

ABSTRACT BOOK

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## Our Common Future, Our Common Global. Approaches from an educational experience towards collective action

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"...When we understand how much we depend on nature then we will start this huge cultural change we need to be more sustainable..." Antonio Tironi Silva, Young Scientists Network Conference, Villa Vigoni, Italy, 2014 (Video available at [www.icsu.org](http://www.icsu.org))

A common future under climate change will need deep behavioural changes. We need to learn more about threats and risks, to reduce vulnerabilities, to increase our capacities to adapt to global environmental changes, and to reduce our pressure on the environment. We need to sustainably live under uncertainty within a complex human-nature world.

We can think about climate change as a major threat to humans and nature, a threat to our common future, a tragedy of our global commons. Despite quite strong, short term global actions are required if we are to avoid this and other threats to and from global environmental changes, equally strong but long term individual and collective behavioural changes will be necessary.

This presentation is about an educational experience aimed at fostering behavioural changes at the individual level and towards collective action. We present results from a local experience through formal education at the National University of Rio Cuarto in Argentina. An ongoing Project (PRODEC\*) which aims at introducing environmental issues within all discipline curricula at our University based on the premise that most of our students are those future professionals and educators that at different levels and within different spaces will have the opportunity and hard challenge to foster that huge cultural change we need to sustain life on Earth.

The Project started in 2013 with the integration of professors from different disciplines, within the social and natural sciences, interested in an interdisciplinary approach to global environmental changes and challenges through formal education. The Project has been associated to a request from the Humanities school at our University and nurtured from the demand of a Secondary school with a trajectory in "education for the environment". To date, four workshops have taken place: one with undergraduate students from our University; one with students for primary education; and the other two, with students from first years of secondary school. In all cases, each workshop was structured in three phases: a) an oral presentation accompanied by allusive photographs, pictures and diagrams to the presented global environmental threats

and challenges; b) the development of competitive and cooperative games; and, c) a space for creativity from group productions (posters made by students) related to what has been experienced, followed by a fifteen minutes presentation by group. Each workshop started with an impersonal individual written inquiry about their expectations for the workshop and ended with another individual appreciation on what has been experienced, in a written form.

Main results from these participative dynamic experiences may be summarized as follows: a) all students show themselves eager to learn more about what is going on at Planetary scale concerning the relationship human-environment; b) there is a widespread willingness to reconnect to nature -i.e. through different activities within and outside the University; and, c) there is a kind of widespread happiness when discovering the possibilities to solve problems through collective action.

To date, these experiences have allowed our working team to increase our expectations on introducing environmental issues within all discipline curricula at our University through this type of workshop activities, even we have not been able to assess the extent to which these activities may have transformed students behaviour yet.

\* PRODEC Team: Rached S; Aguilar Mansilla F; Echenique H; Tello D; De Luca N

P-4414-22

## Dynamic of agricultural innovations diffusion in Burkina Faso

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This study highlights the factors determining the spread of agricultural innovations for water harvesting since the drastic effects of drought 70s in Burkina Faso. These innovations include zai, stone bunds, bunds land, half-moons, mulching and grass strips. A survey of 629 farmers revealed that farmers fall into five categories which are the pioneer, early, latecomer, late and non-adopters. After four decades of diffusion (1974-2013) the rate is estimated at 69.3% for stone bunds, 49.1% for zai, 26.2% for grass strips and less than 10% for half-moons, bunds land and mulching. The multinomial logit model showed that the climatic conditions in the Sahel zone, age and perception of increased dry spells of farm households promoted the spread of these innovations. However, the low level of organization and access to agricultural services were the major constraints to their adoption.

# 4415a - Urban policies for Accessibility, Mobility and Informal settlements in the Global South to cope with Climate Change: Emerging Issues, Innovations and Opportunities

## ORAL PRESENTATIONS

K-4415a-01

## Urban form, mobility and greenhouse gas emission in African cities: the case of Yaoundé

V. Ongolo Zogo (1)

(1) University of Yaoundé, Public Economics, Yaoundé, Cameroon

Short summary: ( max 15 lines)

This contribution using the city of Yaoundé with a mono

centric spatial form, as a case study, aims to show how accessibility is created through the link between urban form and transport services.

The main finding of the estimation is that CO2 emissions is linked to mobility practices associated to distance covered. Consequently, urban form and mobility planning in Yaoundé are not CO2 neutral. The mono centric spatial form of the city of Yaoundé with a spatial concentration of services and economic activities, low residential density likely induces high level of travel demand. Associated with high emission of greenhouse gas services, induces high level of CO2 emissions. The main policy herald should be the necessity to insist on putting in place an integrated land used and mobility plan with a specific focus on non-motorized facilities and mass transit solutions.

Full abstract: (max 34 lines)